

State Water Board Review of the Monterey Peninsula Water Supply Project

Item 7 - June 4, 2013



Background

- In September 2012, the CPUC asked the State Water Board to evaluate whether Cal Am could legally extract groundwater for the Monterey Peninsula Water Supply Project (MPWSP).
- The State Water Board agreed to outline legal considerations that would apply to the MPWSP.

Background (con't)

- In April 2013, a Draft Report was released for public review.
- Board staff received six timely comment letters.
- Staff revised the report based on comments received and released the Final Draft Report on May 22, 2013.

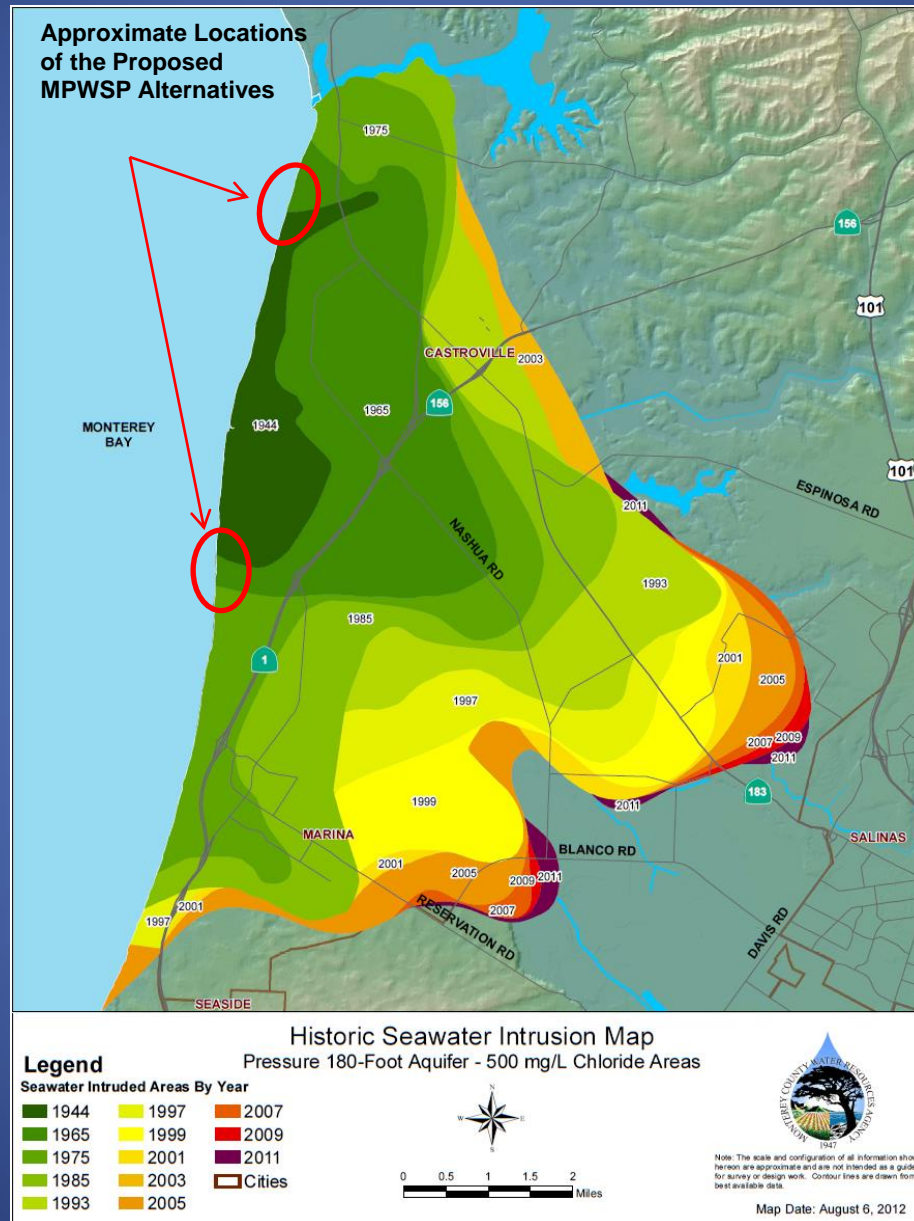
Project Description

- Cal Am proposes to extract feedwater from the Salinas Valley Groundwater Basin using a series of slant wells extending beneath Monterey Bay.
- Approximately 22 million gallons of water per day (mgd) would be extracted from the wells to produce 9 mgd of desalinated product water.

Physical Setting

- The feedwater would be extracted from the Salinas Valley Groundwater Basin from the Dune Sand Aquifer and/or the 180-Foot Aquifer.
- Groundwater in the 180-Foot Aquifer is intruded with seawater as much as 7 miles inland from the coast.
- The cause of the seawater intrusion is from over-pumping of the Salinas Valley Groundwater Basin.

Seawater Intrusion Map



Potential Effects From Pumping

- Lowering of the groundwater elevations near the MPWSP.
- Possible increased seawater intrusion in the immediate vicinity of the extraction wells.
- Potential extraction of freshwater from the Basin.

Data Gaps

- Unknowns:
 - Geologic conditions at the proposed sites.
 - The amount of potential drawdown of groundwater elevations caused by MPWSP.
 - If any fresh water will be extracted by the MPWSP wells.
 - The extent the MPWSP may increase seawater intrusion near its extraction wells.

Legal Summary

- Developed water can be exported from the Basin under established principles of water law.
- The burden is on Cal-Am to show there is no injury to legal users in the Basin.
- If a physical solution is employed, the solution would need to maximize reasonable, beneficial use of the State's waters while ensuring legal users rights are not adversely affected.
- Cal-Am could compensate for any lowering of water levels through monetary compensation or other methods.

Recommendations

- Additional information is needed to determine MPWSP impacts on Basin conditions.
- Site specific information is needed to determine the extent and relationship of the aquifers.
- An accurate groundwater model is needed to estimate how the MPWSP will affect groundwater in the aquifers.

Comments

- Board staff received six timely comment letters.
- The nature of the comments were:
 1. Board role and responsibility in preparing the report.
 2. Sources of information.
 3. Injury to other legal users of groundwater.
 4. Legal issues on exportation of groundwater out of the Basin.
 5. Need for better information about geologic conditions in the area.

Response to Comments

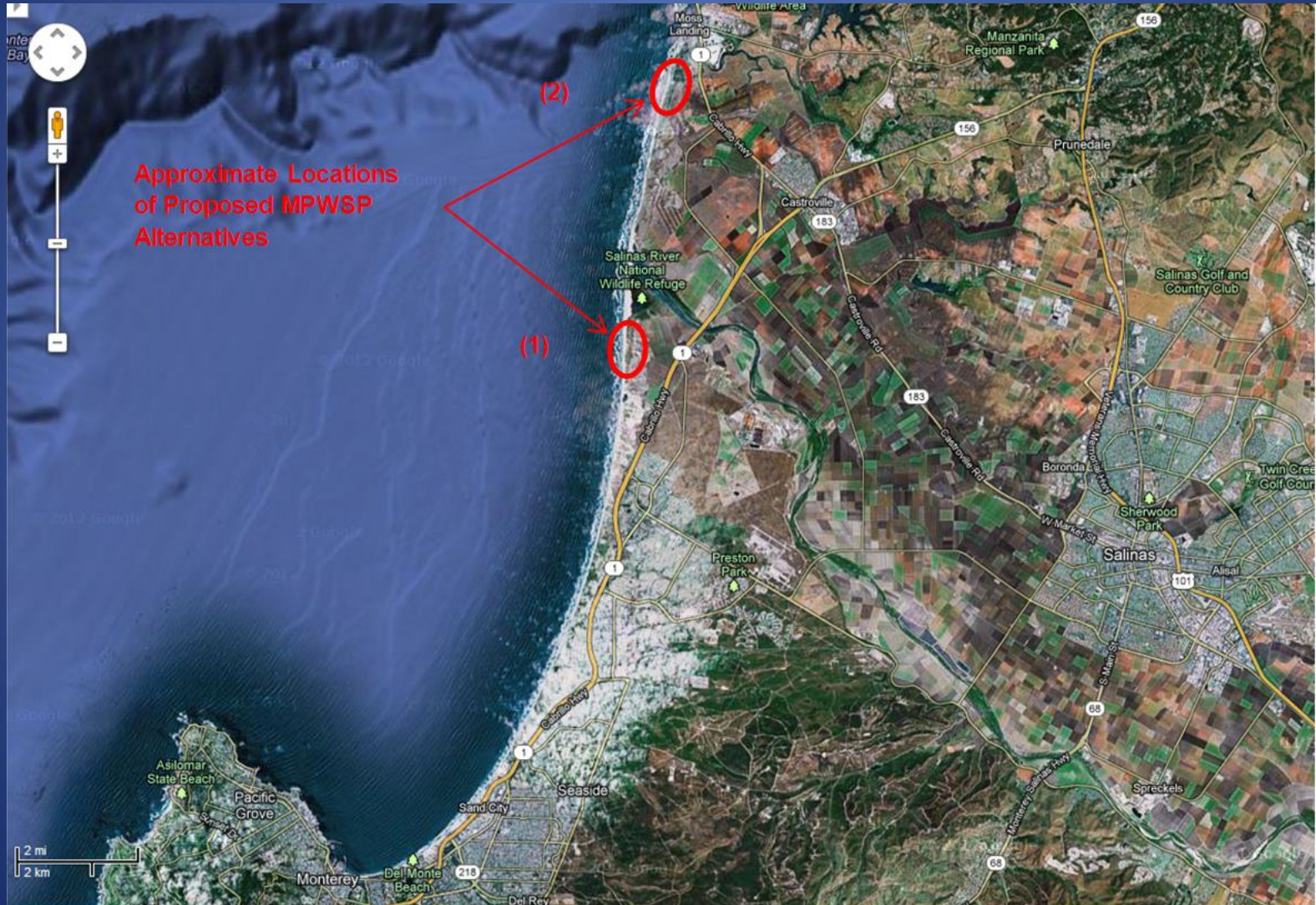
1. Boards role is advisory only.
2. Staff relied on best available information, including an EIR for the Regional Desal Project.
3. Injury may occur, but the onus is on Cal Am to compensate for the injury and make legal water users whole.
4. Cal Am can export groundwater from the Basin if the water is developed.
5. Board staff recommends further studies to determine site specific conditions.

Questions?

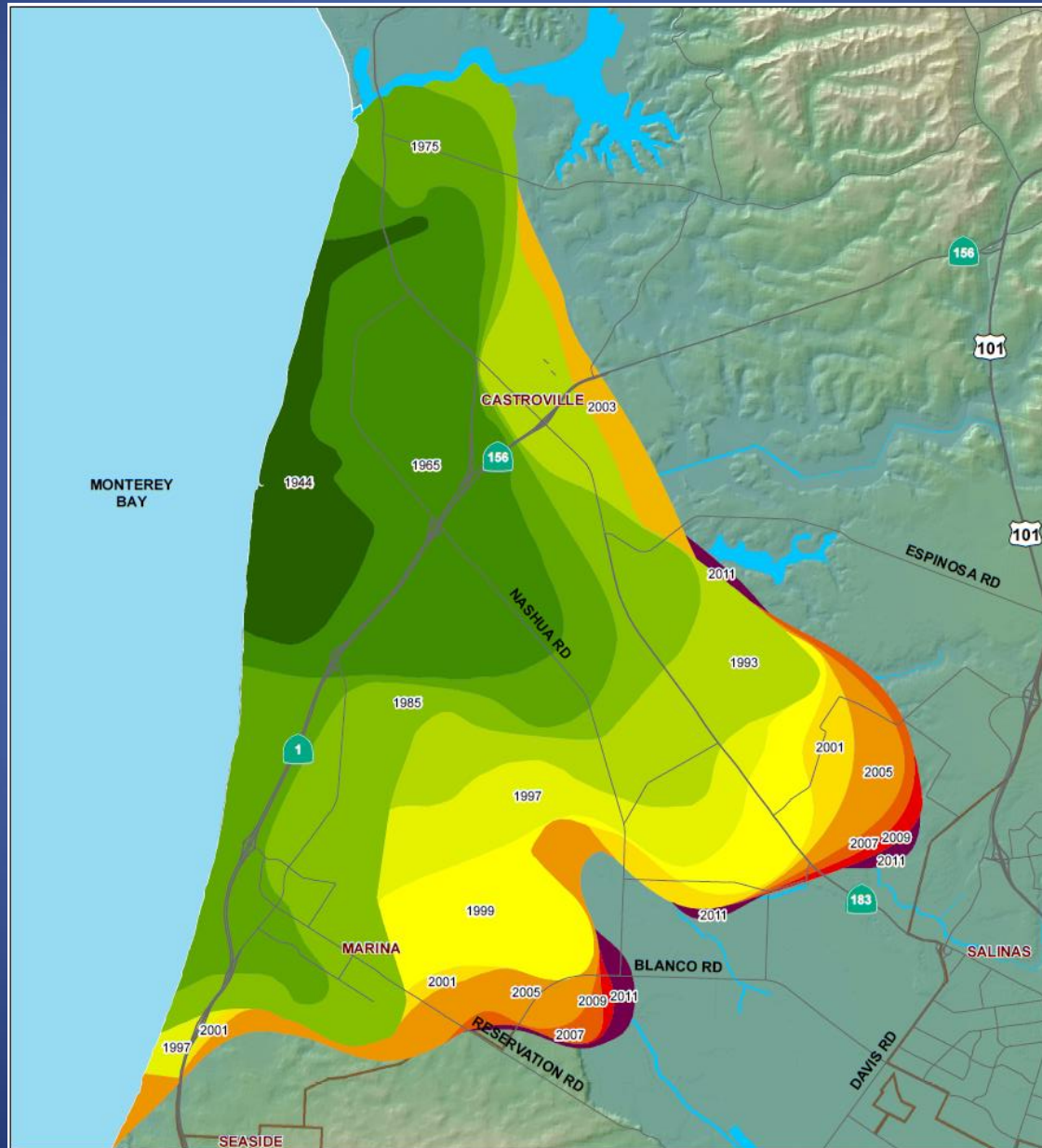


Extra Slides

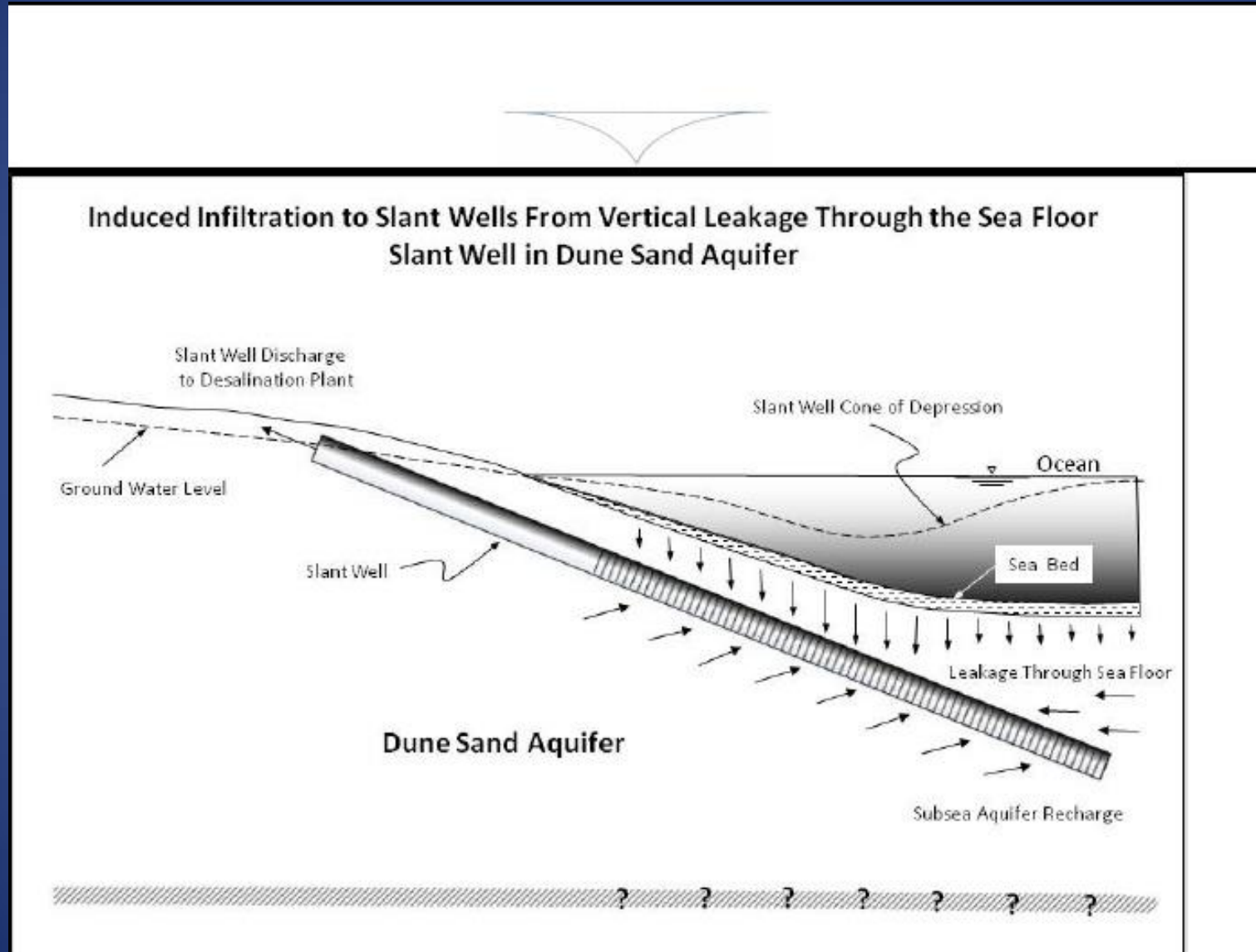
Proposed Locations of the MPWSP



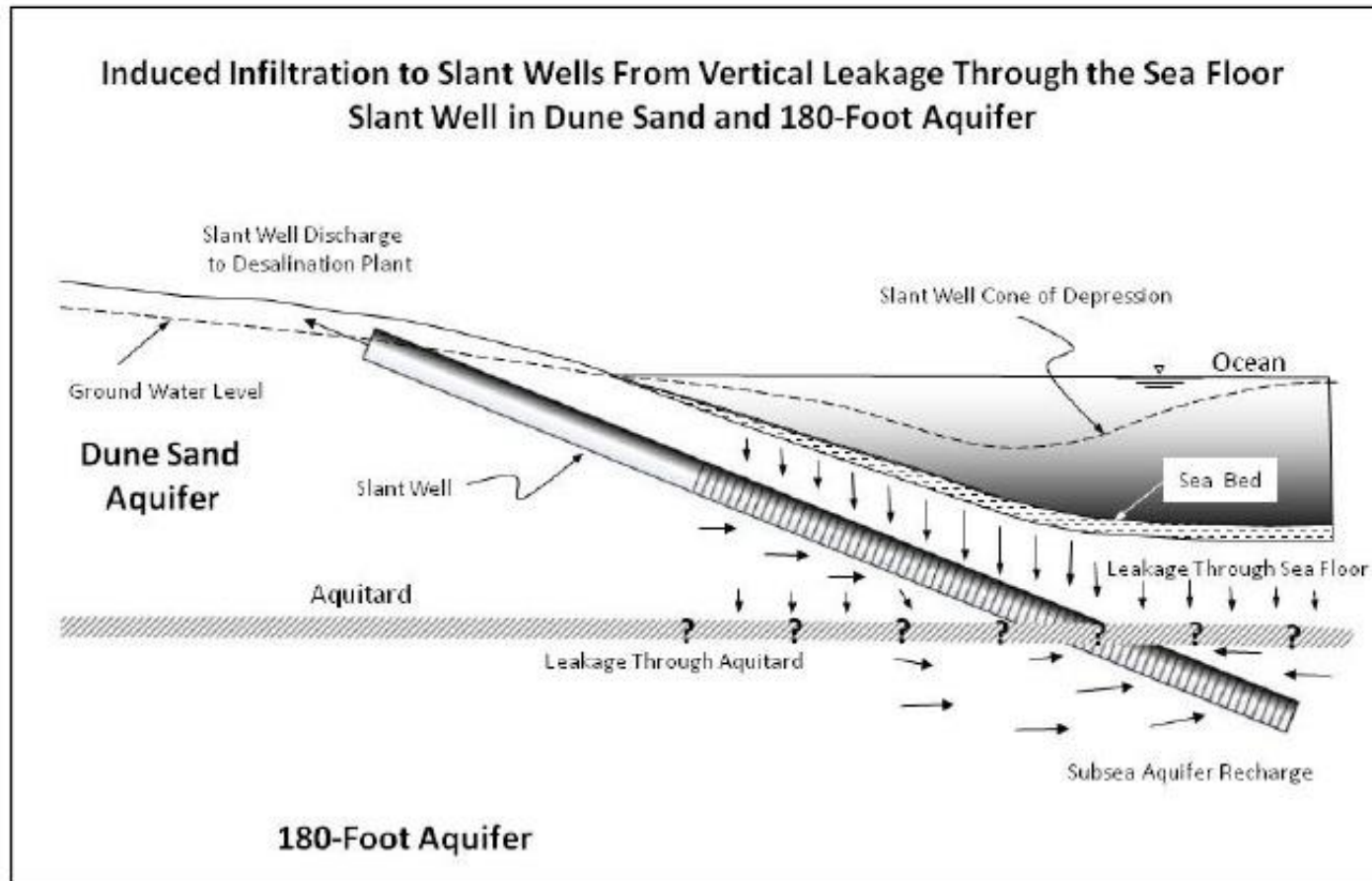
Seawater Intrusion Map



Slant Well - Unconfined



Slant Well – Confined/Semiconfined

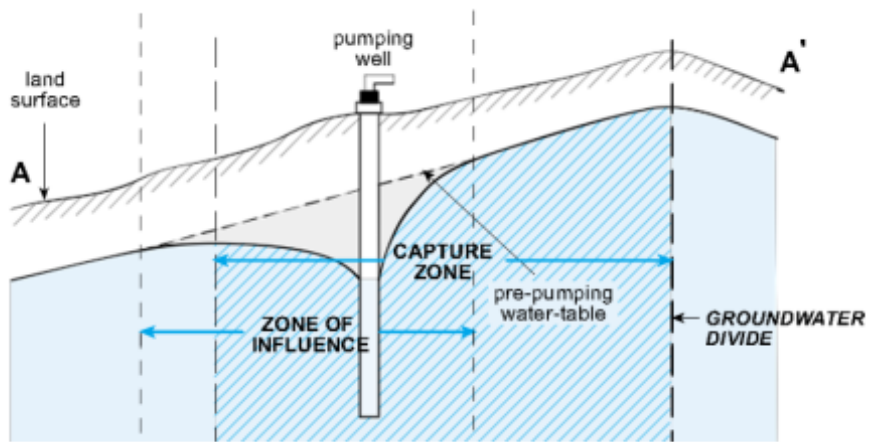


Commenters

- Amy White – Monterey County LandWatch
- Nancy Isakson – Salinas Valley Water Coalition
- Robert Donlan – Representing Cal Am
- Norman Groot – Monterey Farm Bureau
- Ron Weitzman – Water Plus
- Molly Erickson – Representing Ag Land Trust

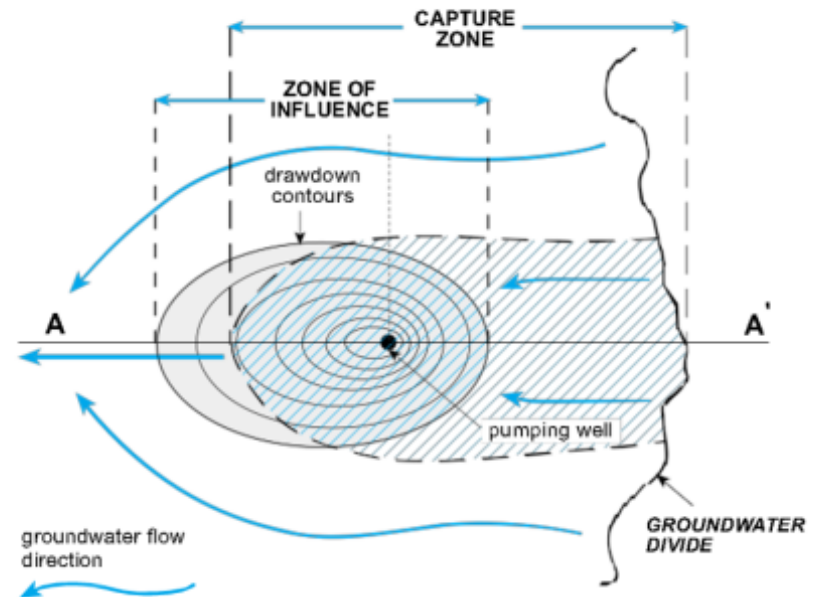
Capture Zone

(a) vertical profile



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(b) plan view



A: Zone of influence and capture zone

(adapted from 'Guidelines for Delineation of Wellhead Protection Areas' US EPA, 1987)